

Excessive bank liquidity and underfunding in the Algerian economy: diagnosis and analysis.

فائض السيولة ومشكلة تمويل الاقتصاد الجزائري : تشخيص و تحليل ؟

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Abstract :

The main function of the banking system is the mobilization of savings, it also fulfils other functions which are complementary to it with the ultimate aim of ensuring the adequacy in quantity and time of the resources and uses which the economy needs. Through credits to the economy, it stimulates investment and ultimately economic growth. This is all the more true for the case of Algeria, which is characterized by almost exclusive bank financing of its economy.

The situation of the Algerian banking sector is characterized by a large domestic saving which it cannot employ, while the Algerian economy is experiencing major financing difficulties. The objective of this article is to emphasize this imbalance between available financial capacities and financing needs, is this a reality or a paradox?

Key words: Banking system, savings mobilization, financing of the economy, economic growth.

JEL classification codes: E51;E52.;E58

Résumé:

Le système bancaire a pour fonction majeure la mobilisation de l'épargne, il remplit aussi d'autres fonctions qui lui sont complémentaires dans le but ultime, est d'assurer l'adéquation en quantité et en temps des ressources et emplois dont a besoin l'économie. Par le biais des crédits accordés à l'économie, il stimule l'investissement et in fine la croissance économique. Cela est d'autant plus vrai pour le cas de l'Algérie qui se caractérise par un financement bancaire quasi-exclusive de son économie.

La situation du secteur bancaire algérien se caractérise par une importante épargne intérieure qu'il ne parvient pas employer, alors que l'économie algérienne connaît de grandes difficultés de financement. L'objectif de cet article est de mettre l'accent sur ce déséquilibre entre capacités financières disponibles et besoins de financement, est-ce une réalité ou un paradoxe ?

Mots clés : Système bancaire, mobilisation de l'épargne, financement de l'économie, croissance économique.

JEL classification: E51;E52.;E58

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1. Introduction.

The relationship between the financing of the economy and economic growth has been a subject that has long preoccupied the economic policies of states. Indeed, an efficient financial system can promote economic growth through better channelling of resources towards productive investment.

However, this growth objective is only achievable if companies secure the resources they need to meet their financing needs. At this level, companies are looking for an external financing resource such as bank debt because they cannot be satisfied with their own resources alone.

Therefore, in the context of a globalized and globalized world, it becomes unreasonable to speak of sustainable economic development without first considering the issue of financing the economy, because the operation of an enterprise requires expenditure which it does not always have.

However, companies often face funding constraints that can lead to the failure of their projects.

We were able to observe this with the financial crisis of 2008: the shock resulting from the bankruptcy of Lehman Brothers did not stop in the financial sphere alone, but very quickly affected the real economy. Indeed, the collapse of the “domino effect” of the global financial system subsequently led to the liberation of large sections of the economic sector. Then the global economy went into recession. The crisis, which was only financial, has become economic.

On the other hand, the implementation of support plans to help economies cope *with the crisis clearly shows us* that an economy cannot be revived without first solving the problem of banks (TCHAMBA, 2011). Indeed, the proper functioning of the financial system is not only essential to stimulate the economic growth of nations, but also a guarantee of their stability.

The imbalance between the financial capacities of Algerian banks and the absorption capacities of the national economy has given rise to an excess liquidity that has remained for about ten years. On the one hand, we have an overly liquid banking system, and on the other hand, we have businesses complaining that they can't raise the money to meet their financing needs.

What can be the source of this paradox? *Why do Algerian banks now have excess liquidity and how is this surplus currently managed?* It is in our work to identify the causes and to examine the way in which this mass of overliquidity is managed.

2. Materials and methods used

The objective of this work is to try to gather elements of analysis that will allow us to know beforehand what the current structure of the Algerian economy is so that we can determine its financing needs. In other words, the value of this approach is to measure the capacity of the banking system to fulfil its function of financing the economy.

Our approach is mainly based on two stages. The first step is to study the development of economic activity through the development of gross domestic product. Once the gross domestic product is analyzed, we proceed to the second stage of the study of the financing of the economy. Data on the analysis of bank intermediation activity and economic growth were extracted from the ONS (National Statistical Office) database respectively.

3. Results Achieved (Analyse DGP) :

To help us understand how GDP has changed over the period, Table 1 shows the evolution of this indicator. In Algeria, the GDP follows a very irregular evolution as shown in Table 1, from 2010 to 2011, the Algerian GDP experienced an evolution, an increase of 1.4%. However, after a 10.6% decline in 2012, GDP fell from 11.1% in 2012 to 3% of GDP in 2016. This means that for the entire period, GDP fell by 17.3%.

Table 1: Gross Domestic Product by activity and legal sector from 2010 to 2016
(Million DA -Current price)

| Economic sectors | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|------------------|-------|-------|-------|------------|-------|------------|------------|
| Agriculture | 9,0% | 16,5% | 20,2% | 15,4% | 8,0% | 13,7% | 1,0% |
| Industrie | 26,8% | 19,6% | 7,1% | -5,1% | -1,0% | - 17,4% | -5,6% |
| Hydrocarbures | 34,5% | 25,4% | 5,6% | - 10,3% | -6,2% | - 30,6% | - 18,3% |
| Public Works | - | 11,7% | 13,2% | - | 9,7% | - | 0,6% |
| Oil Tankers | 33,2% | | | 27,4% | | 21,8% | |

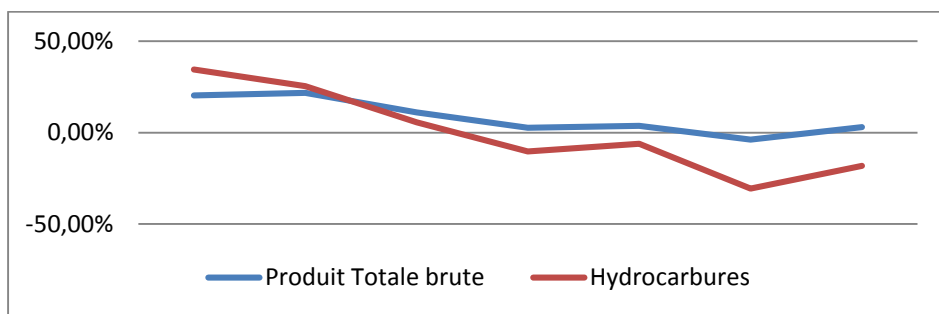
| | | | | | | | |
|---------------------------------|--------------|--------------|--------------|--------------|-------------|--------------|-------------|
| Industry excluding hydrocarbons | 8,2% | 7,5% | 9,8% | 5,1% | 9,3% | 6,3% | 9,3% |
| Building and Public Works | 19,4% | 5,7% | 11,8% | 11,2% | 10,3% | 6,9% | 9,3% |
| Services | 10,1% | 13,4% | 12,7% | 16,5% | 8,9% | 8,6% | 9,7% |
| Transport and Communication. | 7,9% | 15,0% | 11,2% | 22,4% | 6,4% | 10,0% | 14,5% |
| Shops | 10,6% | 12,7% | 14,1% | 13,4% | 10,7% | 7,9% | 6,0% |
| Other services | 14,1% | 11,7% | 11,5% | 12,1% | 9,4% | 7,8% | 9,5% |
| Subtotal | 19,9% | 17,6% | 9,9% | 2,9% | 3,1% | -5,0% | 1,0% |
| Customs duties and taxes | 4,5% | 14,3% | 26,1% | 14,8% | 0,4% | 5,4% | 4,7% |
| T.U.G.P | 3,7% | 11,7% | 16,9% | 12,8% | 4,5% | 4,8% | 9,1% |
| Customs duties | 6,8% | 22,3% | 52,1% | 19,4% | -8,1% | 6,6% | -5,3% |
| Gross Domestic Production | 18,6% | 17,4% | 11,1% | 3,9% | 2,9% | -4,1% | 1,3% |
| Productive consumption | 32,6% | 49,8% | 11,4% | -3,2% | 7,3% | -2,0% | 11,3% |
| Gross Total Product | 20,3% | 21,7% | 11,1% | 2,7% | 3,6% | -3,8% | 3,0% |

Source: Compiled from the various annual statistical yearbooks of the ONS.

This decline would imply over the last six (6) years a cessation of economic activity due largely to the fall in oil prices, the country's main resource.

In addition, there seems to be a strong correlation between the evolution of GDP and that of the oil sector. The GDP growth of 20.3% in 2010 was accompanied by a 34.5% increase in the activity of the oil sector for the same year. In the same vein, the contraction of economic activity of 11.1% in 2012 accompanied a 19.8% decline in the performance of the oil sector; a trend that will continue over the next four years. Signs of dependence on the oil sector are already emerging. We can verify this by comparing the evolution of GDP and that of the oil sector (Coville, 2010/4 (N° 100)).

Figure 1: Evolution over time of GDP and the oil sector from 2010 to 2016 (%)



Source: Calculations based on ONS data.

Over the period from 2010 to 2016, Figure 1 shows that the GDP curve looks exactly the same as that of the oil sector. This confirms that over the period, the development of GDP has been a good and good function of that of the oil sector. The Algerian economy remains very sensitive to the price of hydrocarbons (IMF, 2016).

However, in our analysis of the structure of the economy, we will not limit ourselves to analyzing the situation of the oil sector alone, but rather to analyzing all the sectors that contribute to the formation of GDP. Thus, for better analyses, information indicating the participation of each sector in the formation of the value should be grouped together in a single table (Table 2). While the subsectors must be classified by their capacity to contribute, we have in mind the oil sector with a contribution of 28.11%, followed by the trade subsector which reaches 11.63%, transport and communication which contributes barely 8.89%. It is important to note that many of the subsectors that may have a large spillover effect are still struggling to develop. This is the case, for example, for agriculture, which has a very weak performance and yet Algeria has a great potential because of the richness of its soil – but even worse, the sector in which it is confined with other economic activities (livestock, hunting and fishing) does not make a satisfactory contribution (Tani, 2013).

As a result, a performance of 9.93% was recorded for the entire period. Moreover, the services sector, which includes both transport and communication, trade and catering and hospitality – which is the largest after oil – contributes only 11.63%. Compared to the oil sector, which accounts for 28.11% – which is more than double the number

achieved in 6 years – Whereas the competitiveness of several emerging nations in the world is based on trade (TCHAMBA, 2011).

These structural imbalances in the economy must be corrected as soon as possible in order to allow greater economic competitiveness while reducing the risk of recession caused by a fall in oil prices.

Indeed, as pointed out (BODIE & MERTON, R, 2007) and (UGO, 2012), diversification is an effective tool to reduce the risk of a sector and encourage investors to invest in high-yield projects. It is therefore first and foremost an activity that promotes diversification and, in turn, can determine the optimal allocation of the resources of the banking system.

Table 2: Contribution of each sector to GDP formation

| Economic sectors | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | TM |
|---------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| Agriculture | 8,5% | 8,1% | 8,8% | 9,8% | 10,3 % | 12,1 % | 11,9 % | 9,93 % |
| Industrie | 50,5 % | 49,6 % | 47,9 % | 44,2 % | 42,3 % | 36,3 % | 33,3 % | 43,44 % |
| Hydrocarbures | 34,9 % | 35,9 % | 34,2 % | 29,8 % | 27,0 % | 19,5 % | 15,5 % | 28,11 % |
| Public Works Oil Tankers | 0,5% | 0,5% | 0,5% | 0,3% | 0,4% | 0,3% | 0,3% | 0,40 % |
| Industry excluding hydrocarbons | 5,1% | 4,5% | 4,5% | 4,6% | 4,9% | 5,4% | 5,7% | 4,96 % |
| Building and Public Works | 10,0 % | 8,7% | 8,7% | 9,4% | 10,0 % | 11,1 % | 11,8 % | 9,96 % |
| Services | 21,6 % | 20,1 % | 20,4 % | 23,1 % | 24,3 % | 27,4 % | 29,2 % | 23,73 % |
| Transport and Communication. | 7,8% | 7,4% | 7,4% | 8,8% | 9,0% | 10,3 % | 11,5 % | 8,89 % |
| Shops | 10,7 % | 9,9% | 10,2 % | 11,2 % | 12,0 % | 13,5 % | 13,9 % | 11,63 % |
| Other services | 3,1% | 2,8% | 2,8% | 3,1% | 3,3% | 3,7% | 3,9% | 3,24 % |
| Subtotal | 80,5 % | 77,8 % | 77,0 % | 77,2 % | 76,9 % | 75,9 % | 74,4 % | 77,10 % |

| | | | | | | | | |
|---------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Customs duties and taxes | 6,2% | 5,9% | 6,6% | 7,4% | 7,2% | 7,9% | 8,0% | 7,03% |
| T.U.G.P | 4,7% | 4,3% | 4,6% | 5,0% | 5,1% | 5,5% | 5,8% | 5,00% |
| Customs duties | 1,5% | 1,5% | 2,1% | 2,4% | 2,2% | 2,4% | 2,2% | 2,04% |
| Gross Domestic Production | 86,8% | 83,7% | 83,7% | 84,6% | 84,1% | 83,8% | 82,5% | 84,17% |
| Productive consumption | 13,2% | 16,3% | 16,3% | 15,4% | 15,9% | 16,2% | 17,5% | 15,83% |
| Gross Total Product | 100,0% | 100,0% | 100,0% | 100,0% | 100,0% | 100,0% | 100,0% | |

Source: Constructed from ONS data, different annual statistical yearbooks

4. Analysis of the financing of the economy

Financing the economy refers to all the procedures by which economic agents obtain the funds they need to carry out their activities. All economic agents need financing to carry out their economic activities. Therefore, in this section, we will examine both the banking intermediation and the distribution of credit by sector of activity.

Banking intermediation:

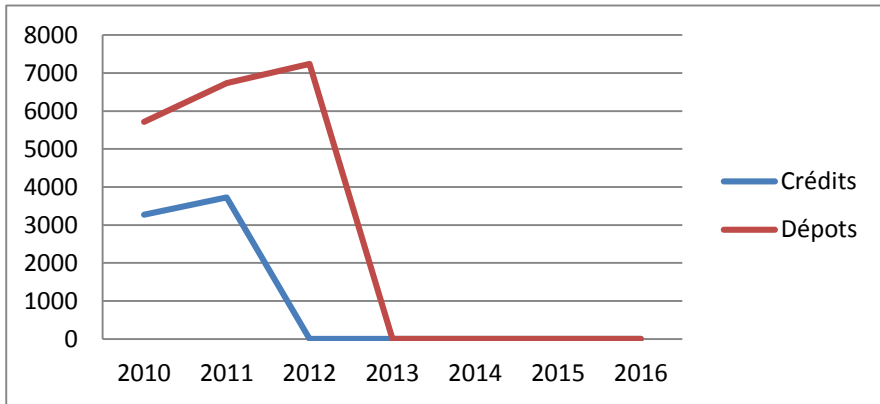
Bank deposits promote the means of financing the economy. Table 3 shows that bank deposits grew more than loans. Figure 2 shows these two evolutionary movements.

Table 3: Evolution of deposits and loans from 2010 to 2016 (in billions of dinars)

| Années | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---------|--------|--------|--------|--------|--------|--------|--------|
| Credits | 3266,7 | 3724,7 | 4285.6 | 5154.5 | 6502.9 | 7275.6 | 7907.8 |
| Dépôts | 5712,1 | 6733,0 | 7238 | 7787.4 | 9117.5 | 9200.8 | 9079.9 |

Source: Bank of Algeria Annual Reports.

Figure 2: Evolution of deposits and loans (2010-2016)



Source: Calculations based on data from the Bank of Algeria.

Indeed, the evolution of deposits is faster than the evolution of loans, which at first sight indicates a situation of excess liquidity. In recent years, banks have raised more money than they have lent. The calculation of a significant ratio - the rate of coverage of deposits by loans, which we will call T_c - leads to this conclusion.

This rate measures a bank's ability to convert its commitments into loans by expressing the proportion of loans in the total amount of deposits received. It is calculated by making the Loans/Deposits report. This means that for our case, in digital application for 2010:

$$TC = \frac{3266,7}{5712,1} * 100 = 57.19 \%$$

Applying the formula to all years results in the following table:

Table 4: Loan coverage ratio of deposits from 2010 to 2016.

| Années | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---------------|---------|---------|---------|---------|---------|---------|---------|
| Credits | 3 266,7 | 3 724,7 | 4285.6 | 5154.5 | 6502.9 | 7275.6 | 7907.8 |
| Dépôts | 5 712,1 | 6 733,0 | 7238 | 7787.4 | 9117.5 | 9200.8 | 9079.9 |
| Coverage Rate | 57.19 % | 55.32 % | 59.20 % | 66.19 % | 71.32 % | 79.07 % | 87.09 % |

Source: Calculations based on data from the Bank of Algeria.

This shows that the coverage rate has essentially been declining from 2010 to 2011 and then began a slight recovery in 2012. As can be seen from Table 4, the volume of loans granted by banks is increasing, but still insufficient in relation to the financing needs of the economy (boulouadnine, 2021).

However, another ratio may allow us to determine the current state of Algerian banks. This is the issue of credit coverage through deposits. In fact, this ratio represents the liquidity level of a bank. As a result, we obtain the following table for the entire Algerian banking system:

Table 5: Loan liquidity rates by deposits from 2010 to 2016.

| Années | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Credits | 3 266,7 | 3 724,7 | 4285.6 | 5154.5 | 6502.9 | 7275.6 | 7907.8 |
| Dépôts | 5 712,1 | 6 733,0 | 7238 | 7787.4 | 9117.5 | 9200.8 | 9079.9 |
| Liquidity rate | 174.86 % | 180.77 % | 168.89 % | 151.07 % | 140.21 % | 126.46 % | 114.82 % |

Source: Calculations based on data from the Bank of Algeria.

The results accurately describe the state of bank reserves, which posted a surplus between 2010 and 2011. In fact, over the past five years (2012-2016), the level of liquidity has decreased from 180.77% to 114.82%. As the Algerian economy depends entirely on hydrocarbon revenues, we note that this decrease in bank resources, depends mainly on the fluctuation of these prices (Ainas, Ouarem, & Souam, 2012/2 (n°210)).

5. CONCLUSION

The objective of this work was, first of all, to present the structure of the Algerian economy through the development of gross domestic product (GDP). Second, to analyze the bank financing of the Algerian economy.

Of course, Algeria has carried out a series of reforms (CNES, 2000) of the financial system with the main objective of giving it greater responsibility in the financing of the economy as well as a greater degree of financial liberalization, but the reality is that our system is still unable to match its actions to the needs of an oil-dependent economy. Indeed, while the dependence of the Algerian economy on its natural resources has allowed it to reach a level of growth, it is also true that it does not guarantee its future, because oil is a finite resource.

In the face of this critical situation, it is now time to ensure a certain balance in the various economic sectors that will generate long-term growth, such as agriculture, industry and trade.

The restructuring of the banking system and the reforms undertaken in this direction have not resulted in a coherent financing scheme for the economy. The Algerian financial system is proving to be inefficient, as it does not fulfil its main mission of channelling savings towards profitable projects and consequently promoting economic growth.

The massive injection of liquidity by the Treasury, through the consolidation of banking portfolios and recapitalisation, has allowed public banks to have sufficient resources. Despite the large resources available, the banking system, especially public banks, has not been able to play an active role in financial intermediation due to the relatively small amount of credit granted to the productive sector of the economy.

Private companies' access to the banking market remains very limited. In this sense, William Easterly stresses that "individuals act on the benefits they can derive from their actions" (Easterly, 2001). The same goes for banks. They will only participate in the economic support dynamic if they can find repayment guarantees and reasonable expectations of profitability. The solution lies in creating safe and profitable conditions for banks to improve their participation in the economic recovery.

We identify a few areas to modernize the banking system:

First of all, it is a question of improving the legal framework in which banks develop and operate. Because banks will never feel sufficiently protected until there is a clear intention of censorship and concrete efforts on the part of public authorities. And that will only increase their risk aversion.

It is also a matter of setting up a body that would be in charge of credit mediation. This body would be responsible for supervising and accompanying bankable projects by supervising their feasibility studies and the preparation of their loan applications; then, when negotiating the financing of these projects, the agency would be responsible for paying off all or part of the debt in the event of the borrower's insolvency.

Other factors that could be cited as contributing to the underperformance of the system:

- a low level of banking which prevents the development of the banking culture and therefore of credit.
- a low level of remuneration, which prevents the creation of favourable conditions for the banking of the economy.
- asymmetry of information.
- a lack of communication that prevents the public from becoming aware of the products offered by banks.

All these factors are constraints on the development of our economy. In summary, the major problem for Algeria is not only the decline in the price of hydrocarbons but rather the ability of banks to manage their excess liquidity, that is to say their working capital resources.

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